ify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on April 27, 2001 Name of Registered Representative: John C. Freeman, Reg. No. 34,483 **PATENT** CASE NO. 56/344 IN THE UNITED STATES PATENT AND TRADEMARK OFFICE In re Application: Erwin Spanner ) Group Art Unit: 2857 Serial No.: 09/661,663 ) Examiner: unassigned Filed: September 14, 2000

#### INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, D.C. 20231

**DEVICE FOR POSITION** 

OF GUIDANCE ERRORS

INDICATION AND DETECTION

Sir:

For:

In compliance with Applicant's duty of disclosure under 37 C.F.R. § 1.56 and in conformance with 37 C.F.R. §§ 1.97-1.98, Applicant hereby submits the following references for consideration by the Examiner. Copies of the references are enclosed along with a completed copy of Form PTO-1449.

# I. <u>DISCLOSURE</u>

## A. <u>U.S. Patents</u>

Patent No.	<u>Inventor</u>	Issue Date
4,101,764	Nelle	07/18/78
4,363,964	Schmitt	12/14/82
4,403,859	Ernst	09/13/83
4,459,750	Affa	07/17/84
4,462,159	Nelle	07/31/84
4,479,716	Nelle	10/30/84
4,519,140	Schmitt	05/28/85
4,587,622	Herzog	05/06/86
4,654,527	Schmitt	03/31/87
4,758,720	Aubele et al.	07/19/88
4,884,280	Kinoshita	11/28/89
4,951,399	Ernst	08/28/90
4,999,623	Affa	03/12/91
5,079,418	Michel et al.	01/07/92
5,553,390	Ernst et al.	09/10/96
5,651,187	Affa	07/29/97
5,689,336	Huber	11/18/97

### B. Foreign Patents

Reference No.	Country	Pub. Date
0 082 441	EP	06/29/83
35 42 514	W: Germany	06/04/87
0 311 144	EP	04/12/89
0 311 279	ЕР	04/12/89
0 387 520	EP	09/19/90
42 01 331.3	Germany	05/06/93
43 01 971	Germany	08/19/93
91 16 843.0	Germany	04/14/94
43 03 161	Germany	08/11/94
0 660 085	EP	06/28/95

## C. <u>Literature</u>

1. "Wichtige Begriffe der Mikropositionierung," published by Physik Instrumente (PI), while the date of publication is unknown, it is believed that the article was published prior to September 14, 2000, pp. 7.5-7.6.

## D. Pending Patent Applications Assigned To Dr. Johannes Heidenhain GmbH

Application No.	<u>Inventor</u>	Filing Date
09/208,127	Mayer et al.	12/09/98
09/485,358	Holzapfel et al.	04/18/00

#### II. <u>DISCUSSION</u>

#### A. European Reference No. 0 082 441

The pertinence of the '441 patent reference is discussed at pages 1, 2 and 15 of Applicant's application. The '441 patent reference was cited as an A-type reference in a corresponding German patent application. An A-type reference is not considered pertinent to patentability and provides technical background. It is believed that U.S. Patent No. 4,587,622 corresponds to the '441 patent reference.

#### B. West German Reference No. 35 42 514

Based solely on the drawings and the enclosed English language Abstract, the '514 patent reference is pertinent because it appears to disclose a correction measurement system for determining guidance errors. The '514 patent reference was cited in a corresponding German patent application. It is believed that U.S. Patent No. 4,758,720 corresponds to the '514 patent reference.

#### C. European Reference No. 0 311 144

The '144 patent reference is discussed at pages 14 and 15 of Applicant's application.

#### D. European Reference No. 0 387 520

The pertinence of the '520 patent reference is discussed at pages 3, 4, 9, 11, 12 and 13 of Applicant's application. It is believed that U.S. Patent No. 5,079,418 corresponds to the '520 patent reference.

#### E. German Reference No. 42 01 331

Based solely on the drawings and the enclosed English language Abstract, the '331 patent reference is pertinent because it appears to disclose two scanning units which face measurement

scales so as to avoid guidance errors. The '331 patent reference was cited in a corresponding German patent application.

#### F. German Reference No. 43 01 971

Based solely on the drawings and the enclosed English language Abstract, the '971 patent reference is pertinent because it appears to disclose a measurement device where changes in angle between the sensing device and a base are detected and a correction value is produced.

The '971 patent reference was cited in a corresponding German patent application.

#### G. German Reference No. 91 16 843.0

Based solely on the drawings, the '843.0 patent reference is pertinent because it appears to disclose a measurement system with separate X and Y graduations. The '843.0 patent reference was cited in a corresponding German patent application.

#### H. German Reference No. 43 03 161

Based solely on the drawings and the enclosed English language Abstract, the '161 patent reference is pertinent because it appears to disclose a measurement system with a reference standard for guide error detection. The '161 patent reference was cited in a corresponding German patent application.

#### I. <u>European Reference No. 0 660 085</u>

The pertinence of the '085 patent reference is discussed at page 2 of Applicant's application. The '085 patent reference was cited as an A-type reference in a corresponding German patent application.

#### J. Physik Instrumente Article

Based solely on the drawings, the Physik Instrumente Article is pertinent because it

appears to disclose a position measuring device.

Ш. **CONCLUSION** 

It is believed that none of these references, alone or in combination, disclose or suggest

the invention claimed. However, Applicant wishes to make it clear that the disclosure of the

above references is in no way an admission that they qualify as prior art. It is Applicant's desire,

however, to have these references available in the record for both the Examiner and the public to

see. Applicant therefore requests that the Examiner review the entire disclosure of each

reference and make the above-listed references of record. Applicants also invite the Examiner to

review and make of record the cited Heidenhain patent applications, copies of which are

enclosed, and the art cited therein.

Respectfully submitted,

John C. Freeman

Registration No. 34,483

Attorney for Applicants

**BRINKS HOFER GILSON & LIONE** P.O. Box 10395 Chicago, Illinois 60610 (312) 321-4200

Dated: April 27, 2001

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